



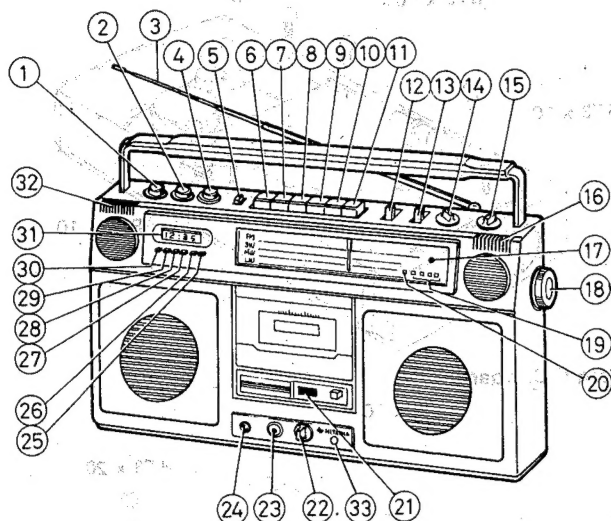
HITACHI

TRK-8110E, E(BS)

SERVICE MANUAL

No. 1276

KEY TO ILLUSTRATIONS



- | | |
|-------------------------------|-----------------------------------|
| ① BASS CONTROL | ①⑦ FM STEREO INDICATOR |
| ② TREBLE CONTROL | ①⑧ TUNING CONTROL |
| ③ TELESCOPIC ANTENNA (AERIAL) | ①⑨ LEVEL INDICATOR (LED) |
| ④ VOLUME CONTROL (L, R) | ①⑩ OPERATION INDICATOR |
| ⑤ MODE SWITCH | ①⑪ TAPE COUNTER |
| ⑥ PAUSE BUTTON | ①⑫ MIXING VOLUME CONTROL |
| ⑦ FAST-FORWARD/CUE BUTTON | ①⑬ MIXING SOCKET |
| ⑧ REWIND/REVIEW BUTTON | ①⑭ HEADPHONE SOCKET |
| ⑨ PLAYBACK BUTTON | ①⑮ SLEEP OFF/SNOOZE BUTTON |
| ⑩ RECORD BUTTON | ①⑯ SLEEP ON BUTTON |
| ⑪ STOP/EJECT BUTTON | ①⑰ TIMER SET BUTTON |
| ⑫ TAPE SELECTOR SWITCH | ①⑱ TIME SET BUTTON |
| ⑬ POWER SWITCH | ①⑲ MINUTE SET BUTTON |
| ⑭ FUNCTION SELECTOR | ①⑳ HOUR SET BUTTON |
| ⑮ BAND SELECTOR | ①㉑ TIMER DISPLAY |
| ⑯ BUILT-IN MICROPHONE (RIGHT) | ①㉒ BUILT-IN MICROPHONE (LEFT) |
| | ①㉓ AC POWER INDICATOR [FOR E(BS)] |

SPECIFICATIONS

GENERAL SECTION

Semi-conductors: IC's: 8
Transistors: 11
Diodes: 16
LED's: 2

Power (Mains) Supply: AC: 220V, 50 Hz [For E]
240V, 50 Hz [For E(BS)]
DC: 12V (IEC R20 x 8 or equivalent)

Power (Mains) Consumption: 18W

Dimensions: 455(W) x 255(H) x 148(D)

Weight: 5.2 kg (with batteries)

Power output: 4 w/ch (T.H.D. 10%)

Speaker: 120 mm, 3.2 ohms x 2
50 mm, 8 ohms x 2

TUNER SECTION

Circuit System: FM/SW/MW/LW 4-band superheterodyne

Tuning Range: FM: 87.5 to 108 MHz
SW: 6.0 to 18 MHz
MW: 530 to 1605 kHz
LW: 150 to 350 kHz

Sensitivity: FM: 10 dB (pra.) 0 dB (max.)
SW: 30 dB (pra.) 20 dB (max.)
MW: 45 dB (pra.) 35 dB (max.)
LW: 55 dB (pra.) 40 dB (max.)

Intermediate Frequency: FM: 10.7 MHz
SW/MW/LW: 465 kHz

Antennas (Aerials):

FM/SW: Telescopic antenna
MW/LW: Built-in ferrite-core antenna

TAPE RECORDER

Tape: Cassette tape (C-30, 60, 90)

Tape Speed: 4.75 cm/s

Tape Speed: AC bias

Erasing System: Quasi-AC erase

Track System: 4 track 2 channel

Frequency Response: Normal: 50 Hz to 10 kHz
CrO₂: 50 Hz to 12 kHz

S/N (Signal to Noise Ratio): 45 dB

WoW and Flutter: 0.1% (WRMS)

Cross Talk: 50 dB

Erase Ratio: 60 dB

Input Sensitivity and Impedance:

Microphone: 5 mV, 10 kohms
Record/playback (DIN): 60 mV, 50 kohms

Output Level and Impedance:

Record/playback (DIN): 500 mV, 5 kohms
EXT. Speaker: 3.2 ohms

Fast Forward or Rewinding Time:

120 sec. (Using C-60)

Distortion:

5%

Motor:


DC Micro motor

CASSETTE TAPE RECORDER WITH FM/SW/MW/LW RADIO

Oct. 1979

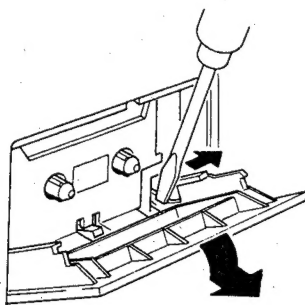
SAFETY PRECAUTION

The following precautions should be observed when servicing.

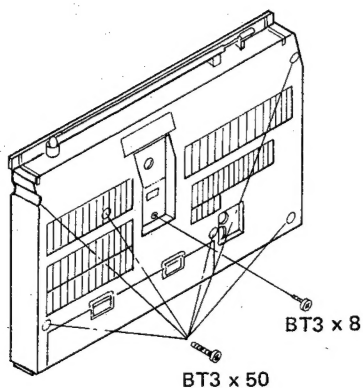
1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi's replacement parts. Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with  in the schematic diagram, and circuit board diagram.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

DISASSEMBLY

1. Cassette lid

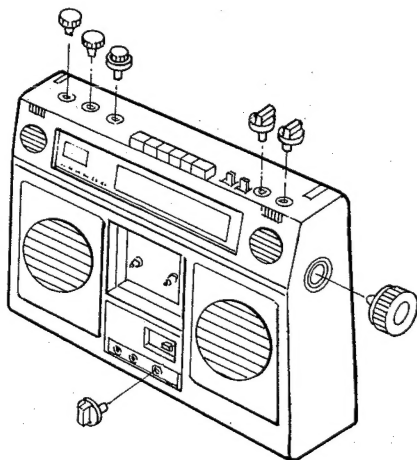


2. Rear case

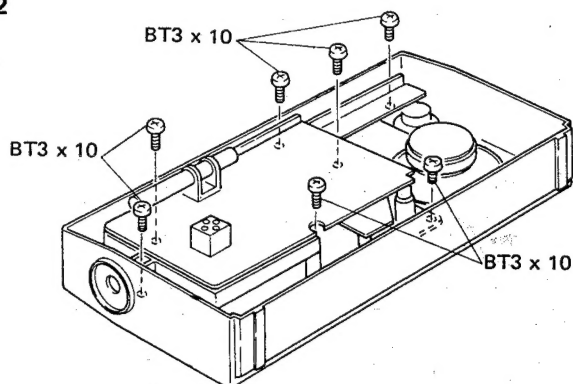


3. Main chassis

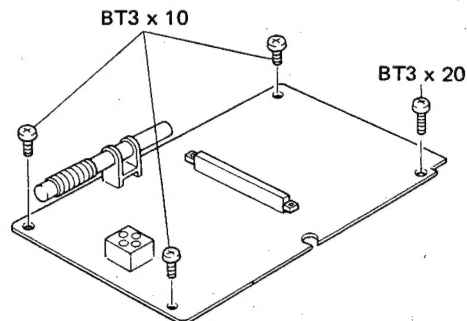
3-1



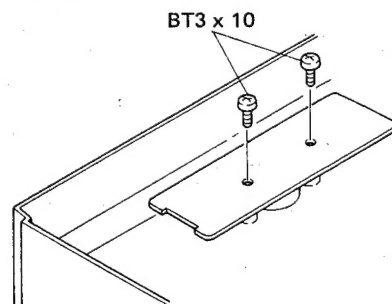
3-2



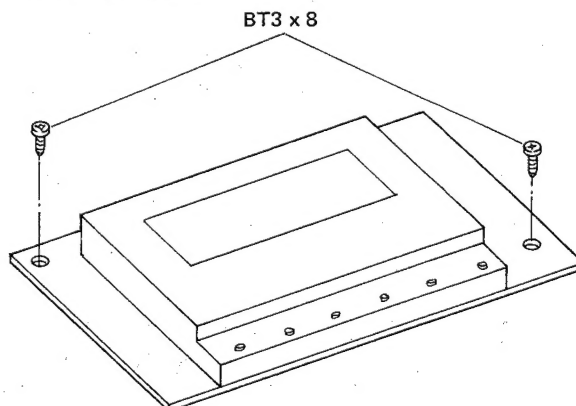
4. Main P.C. board



5. Mix P.C. board

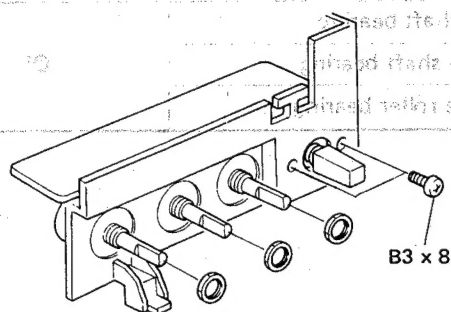


6. Timer P.C. board

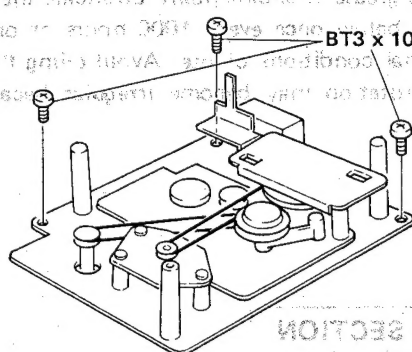


LUBRICATION

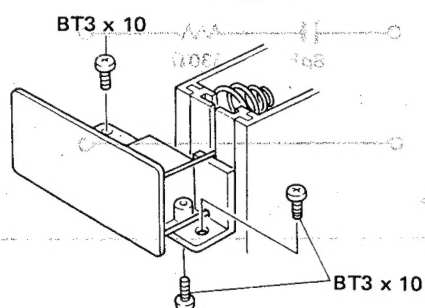
7. Volume P.C. board



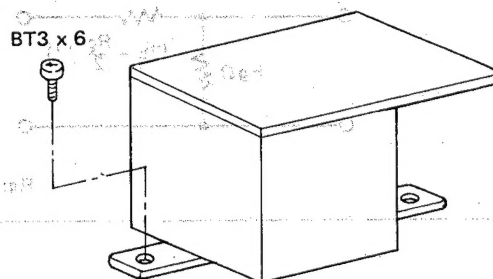
9. Cassette chassis



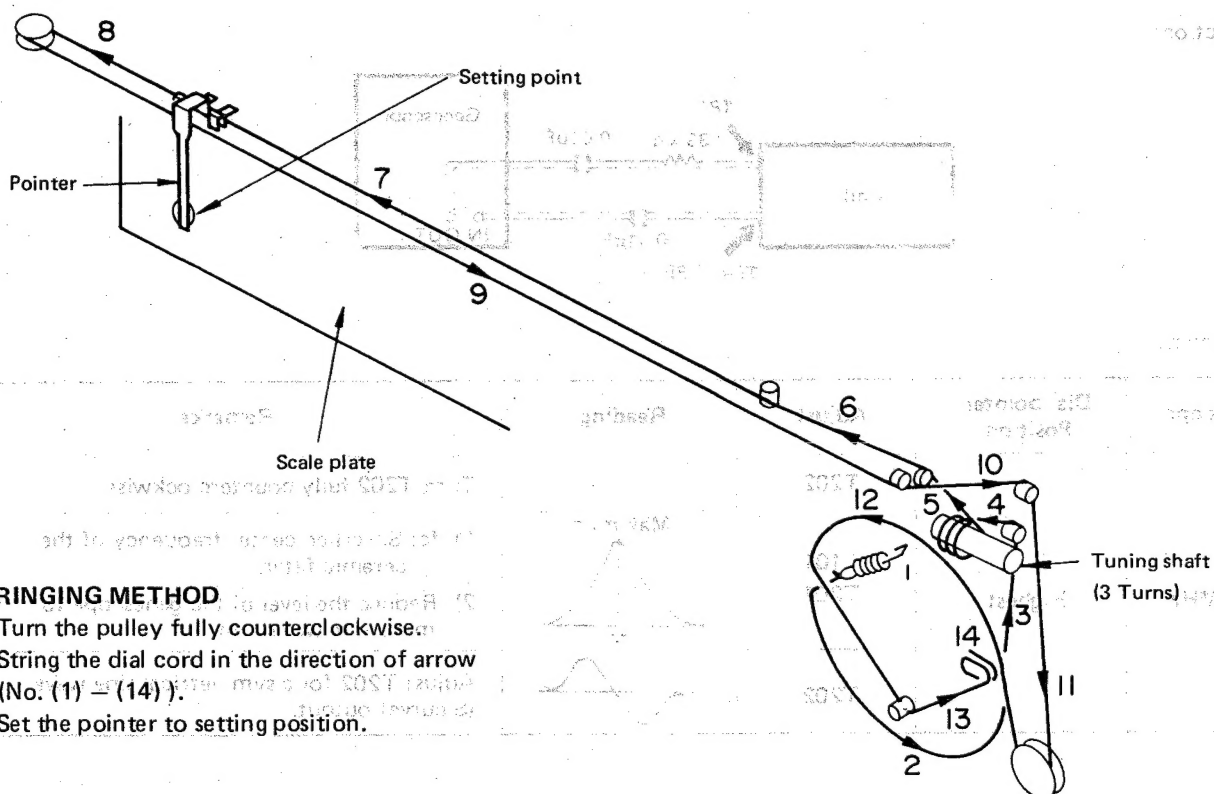
8. Power P.C. board



10. Head phone P.C. board



DIAL CORD STRINGING



STRINGING METHOD

1. Turn the pulley fully counterclockwise.
2. String the dial cord in the direction of arrow (No. (1) - (14)).
3. Set the pointer to setting position.

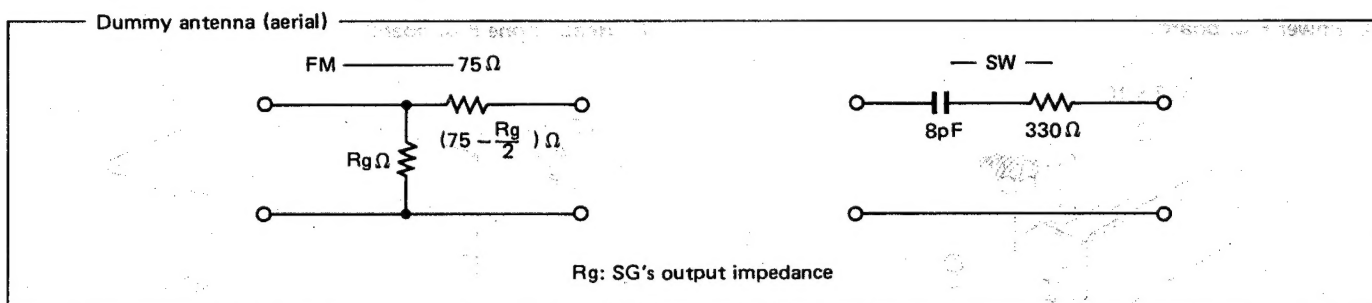
LUBRICATION

Lubricate one or two drops of machine oil to rotating point or lubricate grease to sliding point. Lubricate the respective parts listed below once every 1000 hours or once a year under normal conditions of use. Avoid oiling them excessively, or rotation may become irregular because of oil splashes.

Lubrication	Oil or grease
Motor shaft bearing	Oil
Capstan shaft bearing	
Pressure roller bearing	

ADJUSTMENT

TUNER SECTION

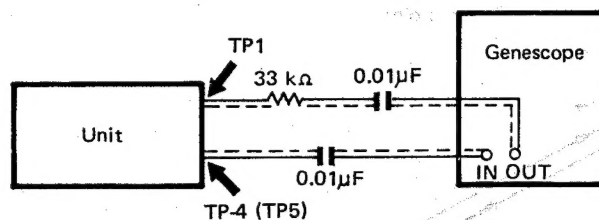


1. FM IF adjustment

Setting:

- Function selector: RADIO ● Band selector: FM
- Mode switch: MONO

Connection:



Adjustment:

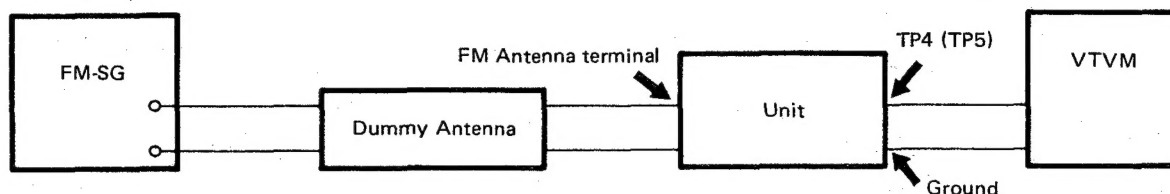
Genescope	Dial pointer Position	Adjust	Reading	Remarks
10.7 MHz	Highest	T202	—	Turn T202 fully counterclockwise.
		T101 T201	Maximum 	1) fc: Specified center frequency of the ceramic filter. 2) Reduce the level of the genescope to make one waveform.
		T202		Adjust T202 for a symmetrical sine wave (S curve) output.

2. FM RF (Covering and Tracking) adjustment

Setting:

- Function selector: RADIO ● Band selector: FM
- Mode switch: MONO

Connection:



Adjustment:

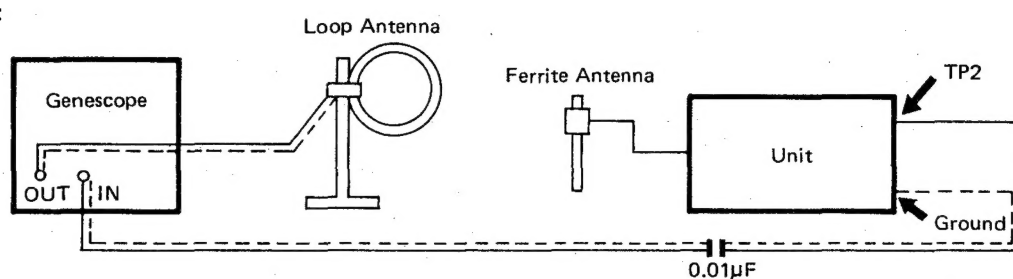
Item		Signal generator		Dial pointer Position	Adjust	Reading	Remarks
		Frequency	Modulation				
1	Covering	87.5 MHz	400 Hz 30%	Lowest	L103	Max.	—
2		108 MHz		Highest	CT102		
3	Repeat 1 and 2.						
4	Tracking	90 MHz	400 Hz 30%	90 MHz	L101	Max.	
5		106 MHz		106 MHz	CT101		
6	Repeat 4 and 5.						

3. AM IF adjustment

Setting:

- Function selector: RADIO
- Band selector: MW

Connection:



Adjustment:

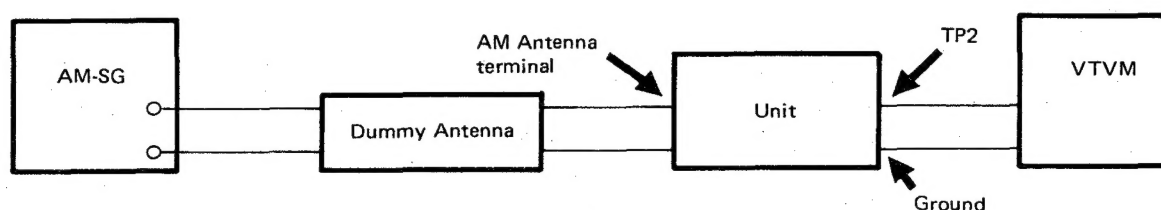
Genescope		Dial pointer Position	Adjust	Reading	Remarks
Frequency	Modulation				
465 kHz	—	Highest	T151 T152 T203	Max.	—

4. SW RF (Covering and Tracking) adjustment

Setting:

- Function selector: RADIO
- Band selector: SW

Connection:



Adjustment:

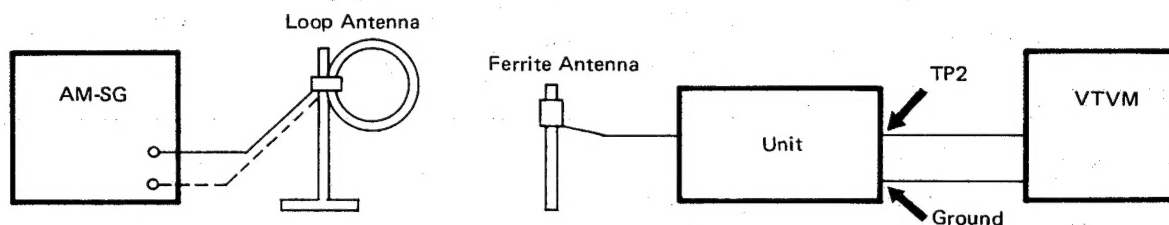
Item		Signal generator		Dial pointer position	Adjust	Reading	Remarks
		Frequency	Modulation				
1	Covering	5.8 MHz	400 Hz 30%	Lowest	L154	Max.	
2		18.5 MHz		Highest	CT154		
3	Repeat 1 and 2.						
4	Tracking	6.5 MHz	400 Hz 30%	6.5 MHz	L151	Max.	
5		16 MHz		16 MHz	CT151		
6	Repeat 4 and 5.						

5. MW/LW RF (Covering and Tracking) adjustment

Setting:

- Function selector: RADIO
- Band switch: MW or LW

Connection:



Adjustment:

1) MW

Item		Signal generator		Dial pointer Position	Adjust	Reading	Remarks
		Frequency	Modulation				
1	Covering	515 kHz	400 Hz 30%	Lowest	L155	Max.	
2		1650 kHz		Highest	CT155		
3	Repeat 1 and 2.						
4	Tracking	600 kHz	400 Hz 30%	600 kHz	L152	Max.	
5		1400 kHz		1400 kHz	CT152		
6	Repeat 4 and 5.						

2) LW

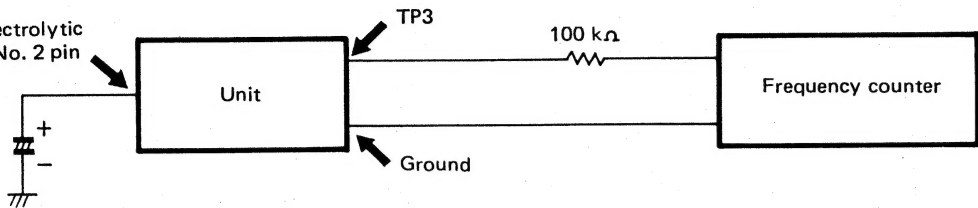
Item		Signal generator		Dial pointer Position	Adjust	Reading	Remarks
		Frequency	Modulation				
1	Covering	145 kHz	400 Hz 30%	Lowest	L156	Max.	
2		360 kHz		Highest	CT156		
3	Repeat 1 and 2.						
4	Tracking	160 kHz	400 Hz 30%	160 kHz	L153	Max.	
5		330 kHz		330 kHz	CT153		
6	Repeat 4 and 5.						

6. FM MPX (Multiplex) adjustment

- Setting:
- Function selector: RADIO
 - Band switch: FM
 - Mode switch: STEREO

Connection:

Connect a 10 μ F 25V electrolytic capacitor between the No. 2 pin of IC301 and Ground.



Adjustment:

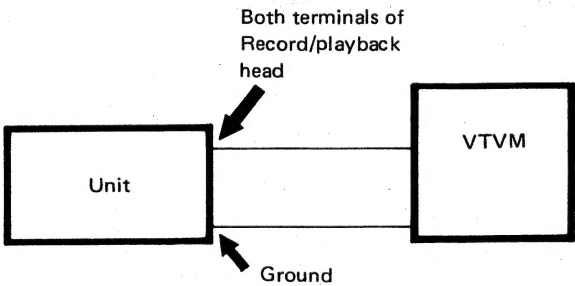
Adjust	Reading	Remarks
RT301	19 kHz \pm 100 Hz	—

TAPE DECK SECTION

1. Bias current adjustment

Setting: Recording mode

Connection:

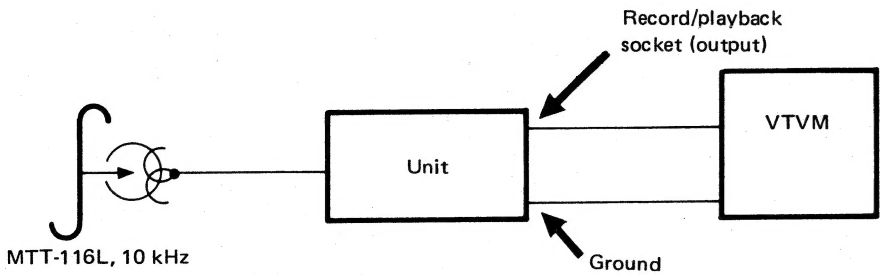


Adjustment: Set the record mode. Adjust RT401 so that the bias voltage of 7V is applied to the both terminals of Record/Playback head.

2. Head azimuth adjustment

Setting: Playback mode

Connection:

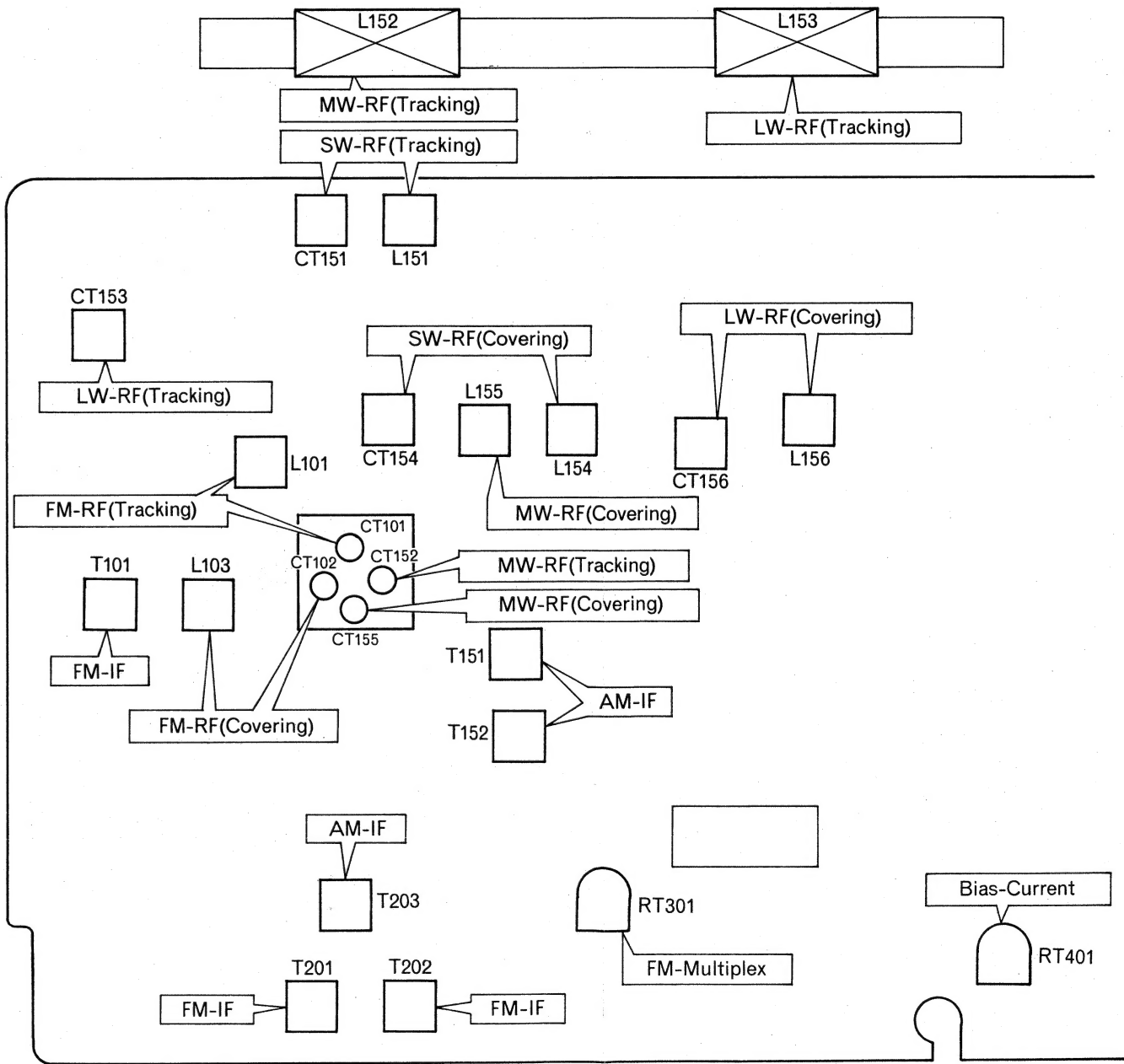


Adjustment: Playback a test tape (MTT116L, 10 kHz) and adjust the azimuth adjustment screw for maximum output.

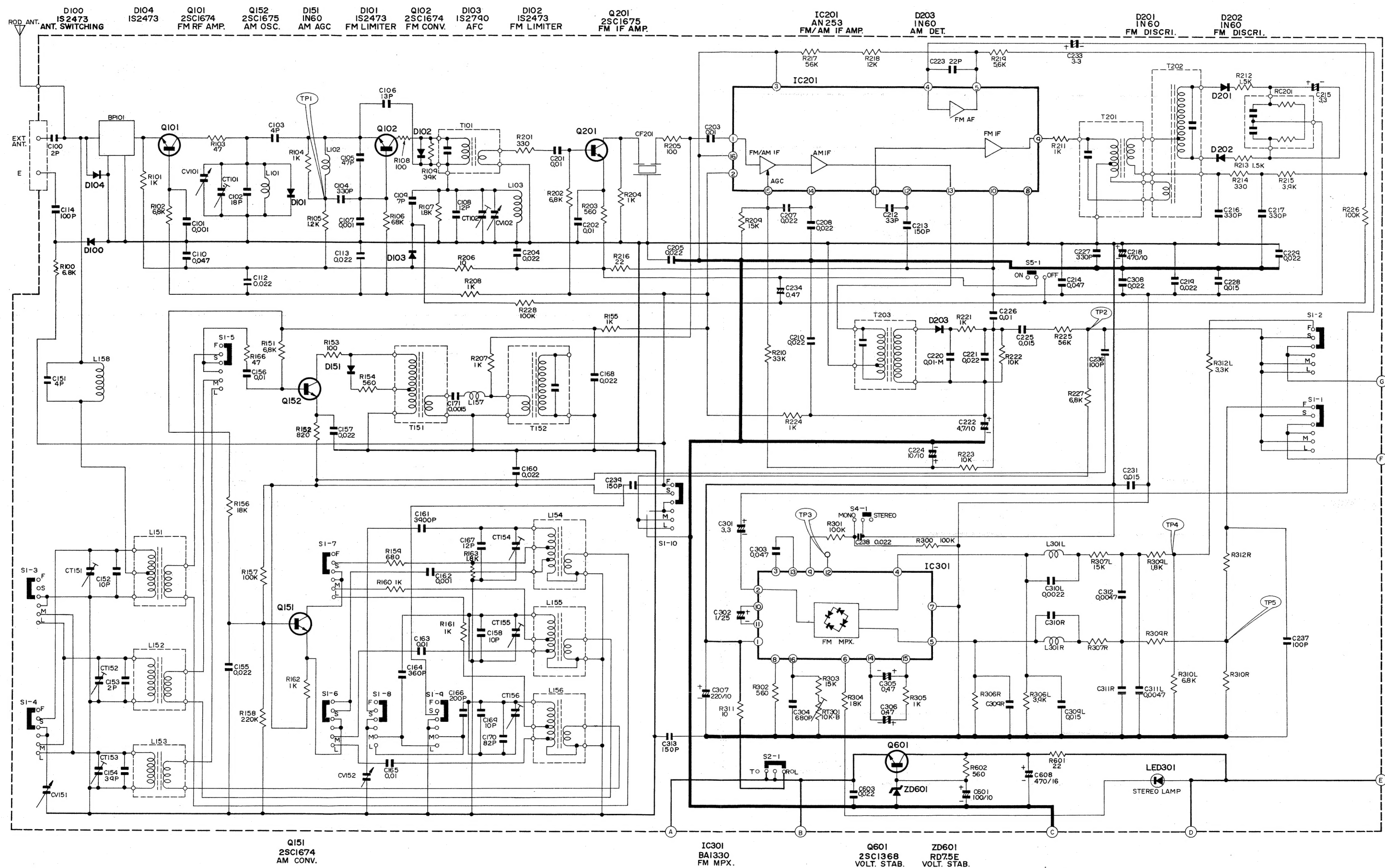
INSPECTION

Mode	Item	Pressure or Torque
Playback	Pressure of pressure roller	350 g 500g
	Take-up torque	35g-cm 60g-cm
	Supply reel back tension	1.5g-cm 3.5g-cm
Rewind	Rewind torque	60g-cm 90g-cm
Fast Forward	Fast Forward torque	65g-cm 90g-cm

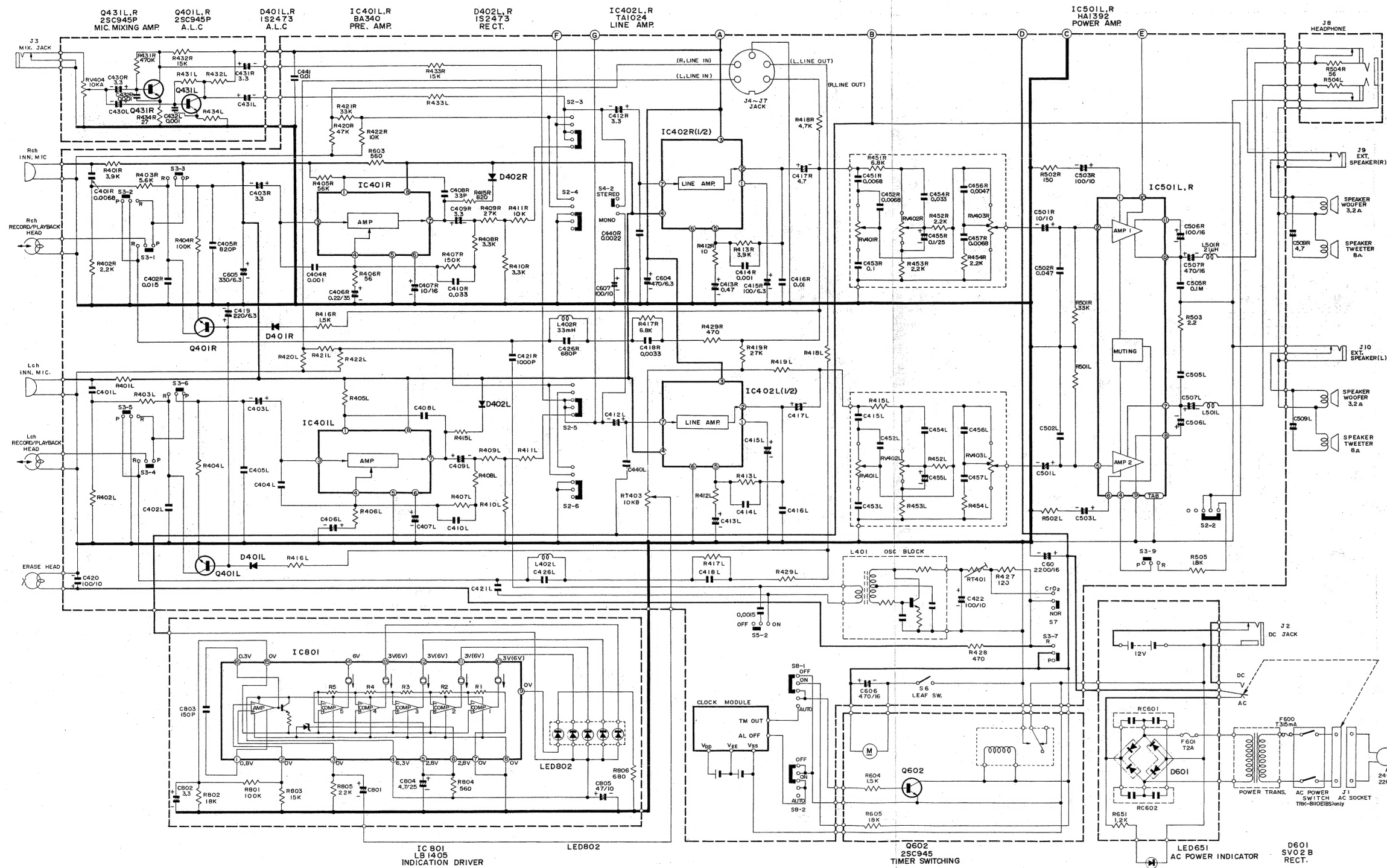
ADJUSTMENT PARTS LOCATION



SCHEMATIC DIAGRAM (Tuner Section)



SCHEMATIC DIAGRAM (Tape Recorder/AF/Power Section)



Note

1. Voltage measured at base of chassis with minimum volume control and no signal.
2. Nomenclature of Resistors and Capacitors.

Circuit No.	
Value	No indicated Ω(Ohm) M: 1000 kΩ
Tolerance	No indicated ±5% K: ±10% M: ±20%
Wattage	No indicated ¼W
Sort	No indicated Carbon film RC: Composition RW: Wire wound RS: Oxide metal film RN: Fixed metal film

Circuit No.	
Value	No indicated μF P: PF
Tolerance	No indicated ±10% J: ±5% M: ±20% Z: ±80%, -20% D: ±0.5pF C: ±0.25pF
Sort	Ceramic Electrolytic Mylar Polyester Styrol
Voltage	No indicated 50WV

3. Be sure to make your orders of resistors and capacitors with value, voltage, tolerance and sort.
4. When replacing capacitors marked with *, use specified ones stated on parts list since required temperature characteristics.

CIRCUIT BOARD DIAGRAM (MAIN P.C. Board)

: Ground

: Signal, +B

1	1 V	6	0 V	11	5 V
2	3.6 V	7	0.7 V	12	6.3 V
3	6.3 V	8	0.7 V	13	3.6 V
4	5 V	9	0 V	14	1 V
5	0.2 V	10	0.2 V		

Q601	
B	6.8V
C	9.5V
E	6.3V

1	1.8 V	5	0 V
2	—	6	0.5 V
3	0.5 V	7	2.1 V
4	0 V	8	5.0 V

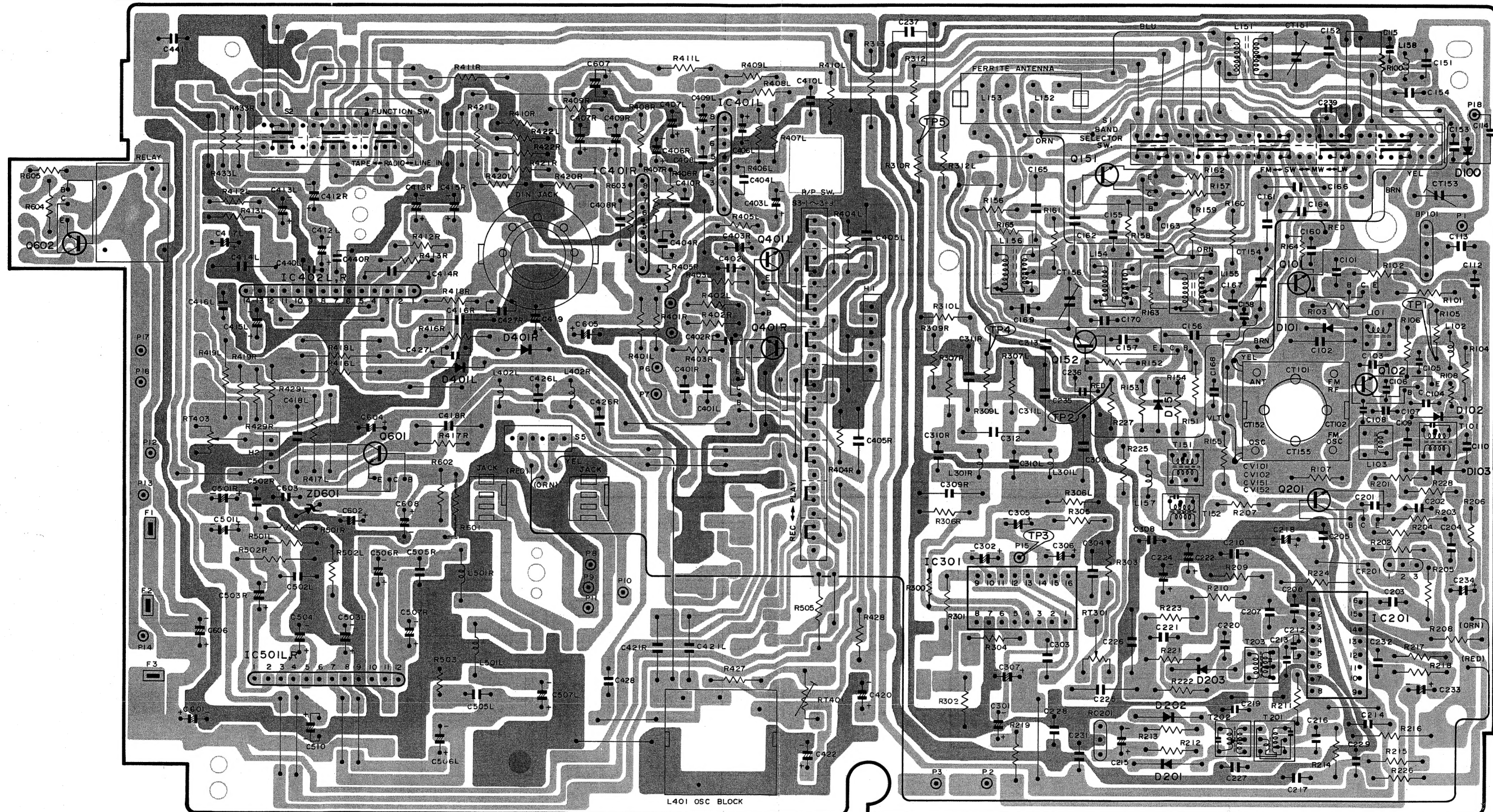
B	0.2 V
C	0 V
E	0 V

Q152	
B	1.6 V
C	5.9 V
E	0.9 V

Q151	
B	1.6 V
C	5.9 V
E	0.9 V

Q101	
B	1.5 V
C	5.6 V
E	0.8 V

Q102	
B	1.5 V
C	5.6 V
E	0.8 V

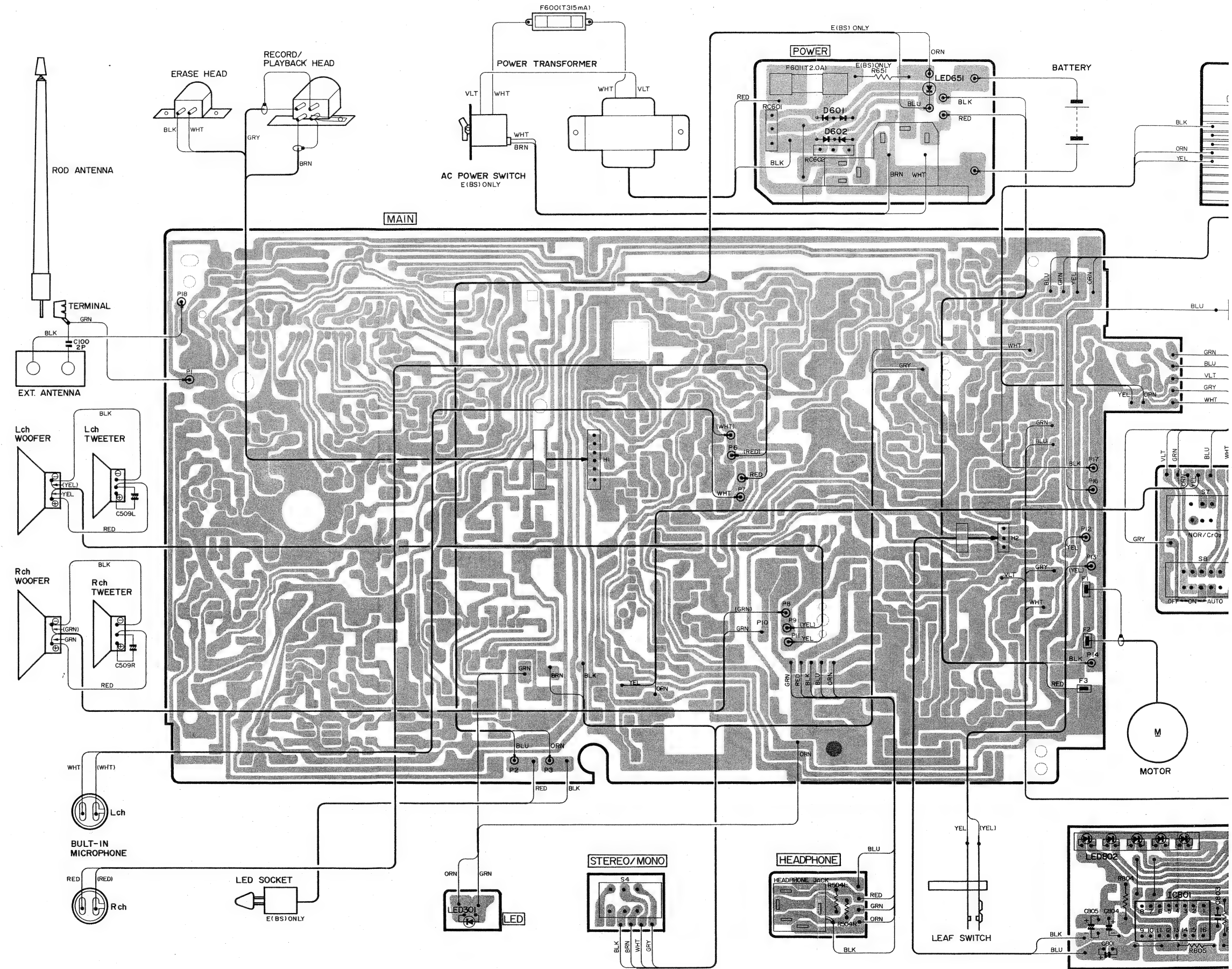


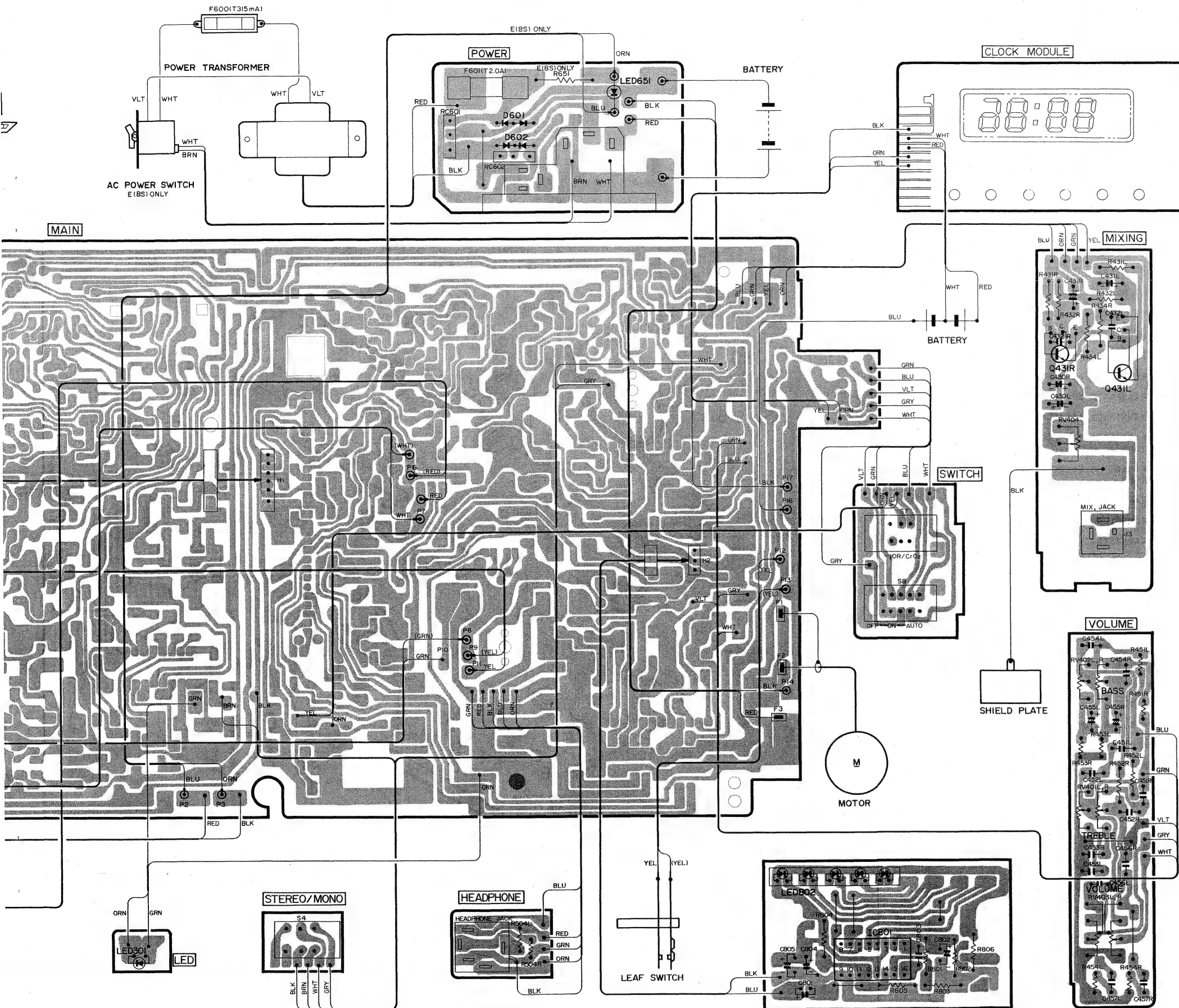
1	0.6 V	5	0 V	9	0 V
2	0 V	6	0.6 V	10	12 V
3	4.7 V	7	6 V	11	11.5 V
4	0 V	8	11.5 V	12	6.3 V

IC301						IC201									
1	6 V	5	1.5 V	9	0.7 V	13	1.6 V	1	0.7 V	5	1.8 V	9	4 V	13	5.2 V
2	15 V	6	5.5 V	10	1.6 V	14	1.6 V	2	1.6 V	6	—	10	5.9 V	14	0.7 V
3	1.9 V	7	0 V	11	1.6 V	15	1.6 V	3	0 V	7	—	11	0.7 V	15	0.4 V
4	1.5 V	8	0.2 V	12	1.2 V	16	2 V	4	1.4 V	8	5.6 V	12	0.7 V	16	0 V

Q201	
B	1.6 V
C	5.9 V
E	0.9 V

WIRING DIAGRAM

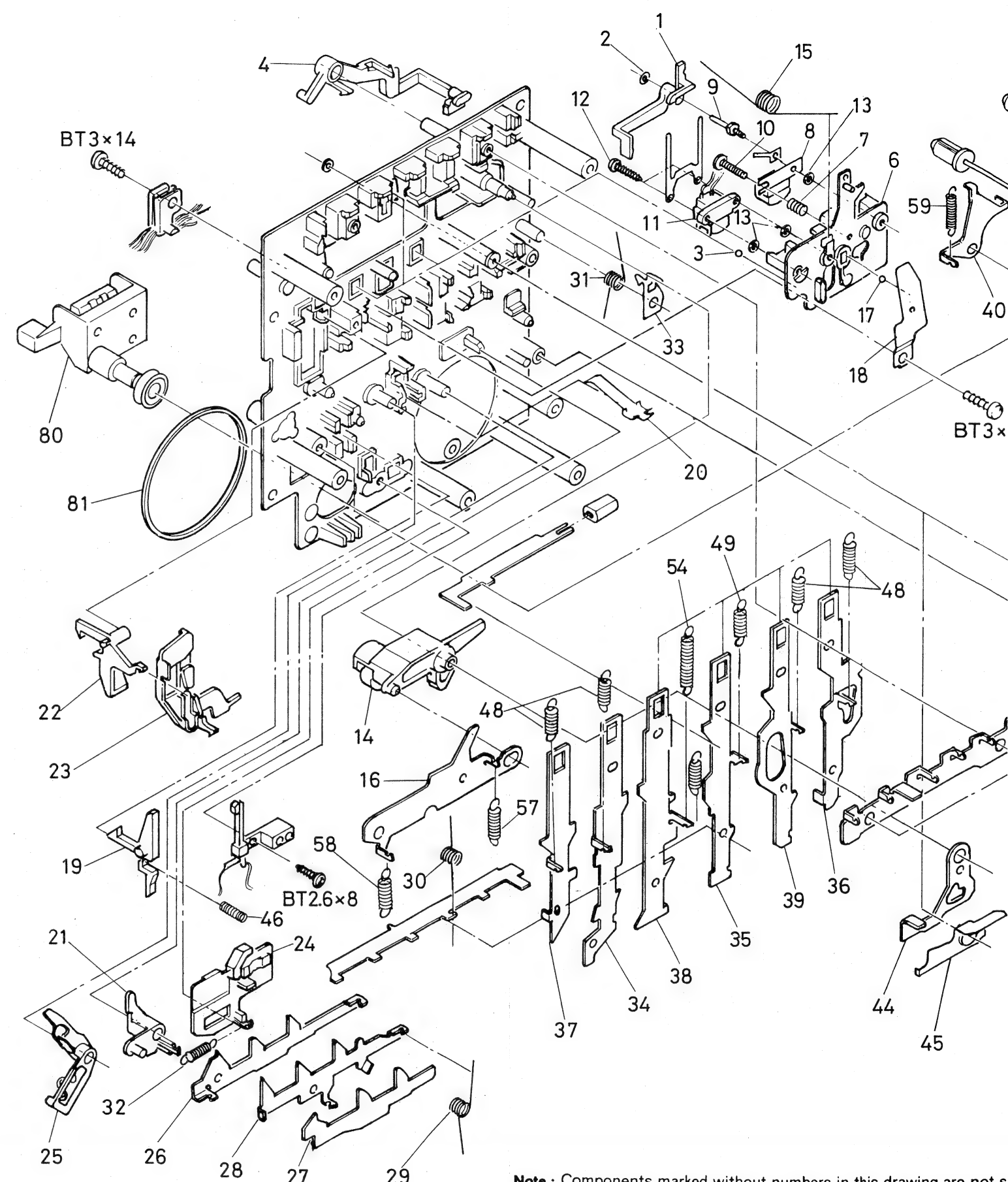




REPLACEMENT PARTS LIST

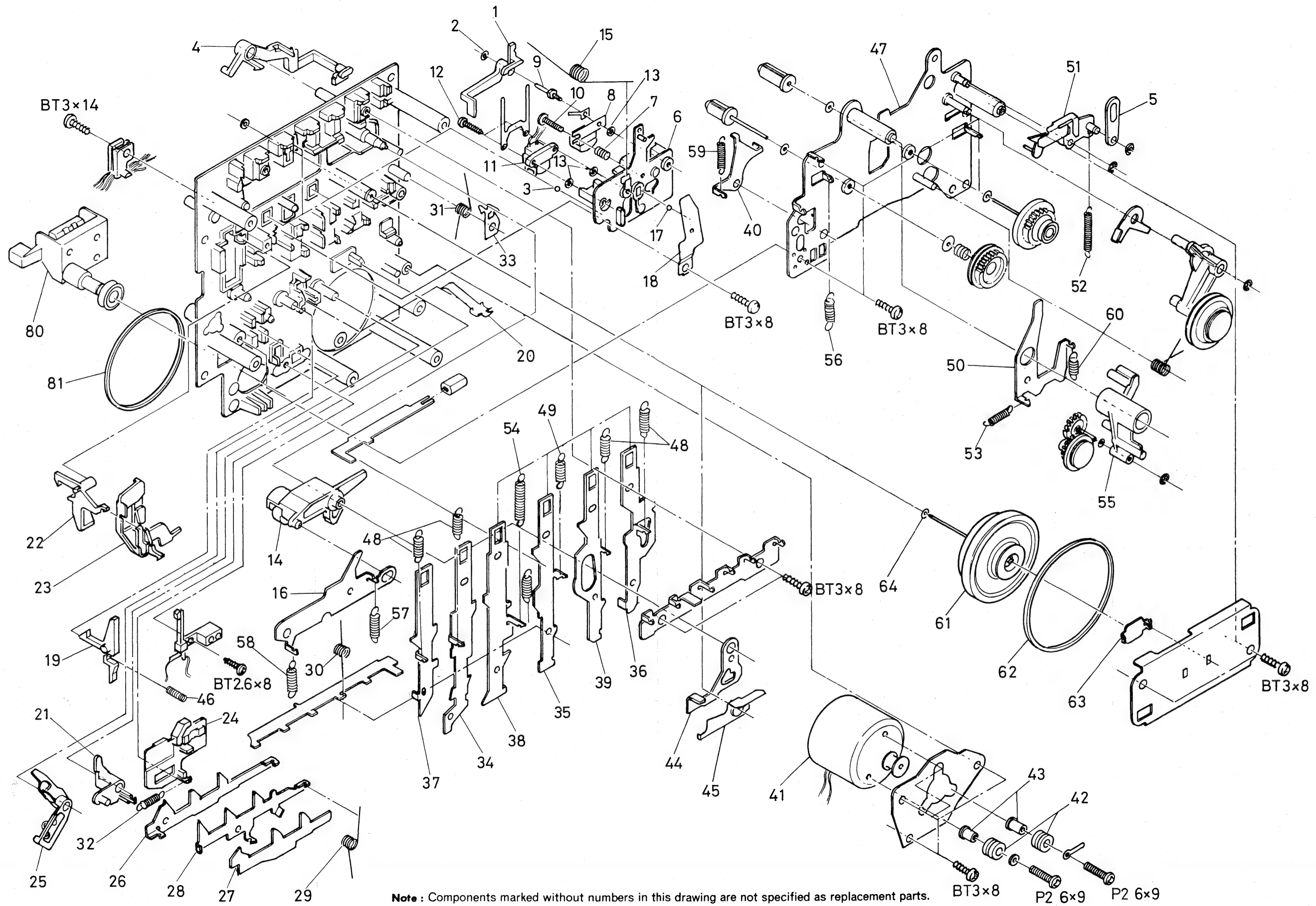
SYMBOL-NO	P-NO	DESCRIPTION	SYMBOL-NO	P-NO	DESCRIPTION
CAPACITORS			D102	5330574	DIODE 1S2473
CT101	5052391	PLASTIC FILM VARIABLE	D103	5330661	DIODE SILICON LS2790 200MHZ 80MW
CT102	5052391	PLASTIC FILM VARIABLE	D151	5330732	DIODE GERMANIUM 1N60P 80MHZ 50MW
CT151	5058191	TRIMMER 10PF	D201-203	5330732	DIODE GERMANIUM 1N60P 80MHZ 50MW
CT152	5052391	PLASTIC FILM VARIABLE	D401LR	5330574	DIODE 1S2473
CT153	5058191	TRIMMER 10PF	D402LR	5330571	DIODE 1S2473VE
CT154	5058191	TRIMMER 10PF	D601	5330374	DIODE SV-02B
CT155	5052391	PLASTIC FILM VARIABLE	D602	5330373	DIODE SV-01B
CT156	5058102	VARIABLE CAPACITOR	IC201	5351064	IC AN253BB
CV101	5052391	PLASTIC FILM VARIABLE	IC301	5350684	IC BA1330
CV102	5052391	PLASTIC FILM VARIABLE	IC401LR	5350961	IC BA340
CV151	5052391	PLASTIC FILM VARIABLE	IC402LR	5357001	IC TA1024
CV152	5052391	PLASTIC FILM VARIABLE	IC501LR	5352141	IC HA1392
C102	0208132	CERAMIC DISC (RESISTOR SHAPE) 18PF+ -5%	IC801	5359581	IC LB1405
C106	0246443	CERAMIC CAPACITOR 13PF+-5% DC500WV	LED301	5380182	LED LR0302R
C108	0248470	CERAMIC DISC 10PF+-0.25PF (N-750)	LED601	5380241	LED GL 3PR1 (BS)
C109	0246427	CERAMIC DISC 7PF+-0.5PF (NP-0)	LED802	5380462	LED LN05202P
C156	0209026	CERAMIC DISC (RESISTOR SHAPE) 0.01M F+-30	Q101	5321271	TRANSISTOR SILICON 2SC1674L 600MHZ
C162	0209010	CERAMIC DISC (RESISTOR SHAPE) 1000P F+-10	Q102	5321271	TRANSISTOR SILICON 2SC1674L 600MHZ
C163	0209026	CERAMIC DISC (RESISTOR SHAPE) 0.01M F+-30	Q151	5321271	TRANSISTOR SILICON 2SC1674L 600MHZ
C226	0209026	CERAMIC DISC (RESISTOR SHAPE) 0.01M F+-30	Q152	5321281	TRANSISTOR SILICON 2SC1675-L 230MHZ 200M
C311LR	0209024	CERAMIC DISC (RESISTOR SHAPE) 4700P F+-30	Q201	5321281	TRANSISTOR SILICON 2SC1675-L 230MHZ 200M
C312	0209024	CERAMIC DISC (RESISTOR SHAPE) 4700P F+-30	Q401LR	5320813	TRANSISTOR 2SC945P
C405LR	0209009	CERAMIC DISC (RESISTOR SHAPE) 820PF +-10%	Q431LR	5320813	TRANSISTOR 2SC945P
C414LR	0209010	CERAMIC DISC (RESISTOR SHAPE) 1000P F+-10	Q601	5320922	TRANSISTOR 2SC1368C
C416R	0209026	CERAMIC DISC (RESISTOR SHAPE) 0.01M F+-30	Q602	5322213	TRANSISTOR 2SC1741R
C418LR	0209023	CERAMIC DISC (RESISTOR SHAPE) 3300P F+-30	ZD601	5330844	ZENER DIODE RD7.5EB
C421LR	0209010	CERAMIC DISC (RESISTOR SHAPE) 1000P F+-10	TRANSFORMERS		
RESISTORS			△ PT	5211736	POWER (BS)
RC201	0186357	CR PACK	△ PT	5212181	POWER
RC601	0186451	CR PACK	T101	5140071	FM IFT
RC602	0186451	CR PACK	T151	5130153	AM IF
RT301	0151808	SEMI VARIABLE 10K OHM RS88	T152	5130121	AM IFT
RT401	0151806	SEMI VARIABLE 1KOHM B	T201	5148111	FM DISCRIMINATOR
RT403	0151808	SEMI VARIABLE 10K OHM RS88	T202	5148112	FM DISCRIMINATOR
RV401LR	5000043	VARIABLE 10KOHM (3B)	T203	5130122	AM IFT
RV402LR	5000042	VARIABLE 10KOHM (A)	COILS		
RV403LR	5000731	VARIABLE RESISTOR 20KOHM (3B)	L101	5126006	FM RF COIL 0.5 MICROH
RV404	5000401	VARIABLE 10KOHM (A)	L102	5126391	FM
SEMI-CONDUCTORS			L103	5126362	FM-OSC
D100	5330571	DIODE 1S2473VE	L151	5123493	SWITCH ANTENNA
D101	5330574	DIODE 1S2473	L152	5113481	FERRITE ANTENNA
			L153	5113481	FERRITE ANTENNA
			L154	5123494	SW OSC
			L155	5120319	OSCILLATOR COIL
			L156	5120465	LW OSC
			L157	5152091	CHOKE 180MICRO H

EXPLODED VIEW



Note : Components marked without numbers in this drawing are not s












EXPLODED VIEW



Note: Components marked without numbers in this drawing are not specified as replacement parts.

SYMBOL-NO	P-NO	DESCRIPTION	SYMBOL-NO	P-NO	DESCRIPTION
COILS			9	7545533	SPECIAL SCREW
L158	0333116	CHOKE COIL	10	7781004	SCREW
L301LR	5150571	CHOKE COIL 33MH	11	5445101	ERASE HEAD
L401	5260641	OSCILLATOR BLOCK	12	7780913	TAPPING SCREW-2HMDX10MM
L402LR	5150571	CHOKE COIL 33MH	13	7778183	POLYESTER WASHER
L501LR	5150761	CHOKE COIL	14	6383142	PRESSURE ROLLER ARM ASSEMBLY
MISCELLANEOUS			15	6307741	SPRING
	5310401	CLOCK MODULE (LX-3412H)	16	7286182	PR LEVER
△	5653241	AC-DC SOCKET	17	0948492	BALL - 2MMD
	5658071	LED SOCKET (BS)	18	6329637	HEAD PLATE HOLDER
	5659121	BACK COVER	19	6741103	RECORDING PREVENTION ARM
ANT	5752461	ROD ANTENNA	20	6530471	CASSETTE HOLDER
BP101	5161551	FILTER	21	6756261	BRAKE FUNCTION ARM
CF201	5160301	CERAMIC FILTER 10.7MHZ	22	6740982	EJECT ARM
FM ANT J	5671661	FM ANTENNA TERMINAL	23	6741186	EJECT SLIDER
F600	5720171	FUSE	24	6756331	AUTO STOP FUNCTION PLATE
F601	5720177	FUSE 2A	25	6741712	SWITCH FUNCTION ARM
J 3	5673081	JACK (MIX MIC)	26	7287692	SW PLATE
J 4-7	5653211	DIN JACK	27	7297951	RC PLATE
J 8	5674131	HEADPHONE JACK	28	7288494	FUNCTION PLATE
J 9	5673261	JACK-3.5MMD	29	6308102	SPRING
J10	5673261	JACK-3.5MMD	30	6307733	SPRING
MIC	5421508	BUILT IN MICROPHONE	31	6307711	SPRING
RL	5641171	RELAY	32	6300375	SPRING FOR RECORDING PLATE
S 1	5625011	SLIDE SWITCH	33	7286241	PAUSE LOCK PIECE
S 2	5620501	SWITCH-SLIDE	34	7297851	RECORDING SLIDER (B)
S 3	5623431	SLIDE SWITCH	35	7297841	REWIND SLIDER (B)
S 4	5634158	PUSH SWITCH	36	7286042	PAUSE SLIDER ASSEMBLY
S 5	5621184	SLIDE SWITCH	37	7297831	STOP SLIDER (B)
S 6	5603231	LEAF SWITCH	38	7297491	PLAY SLIDER (B)
S 7	5604082	LEVER SWITCH	39	7297481	FAST FORWARD SLIDER (B)
S 8	5604092	LEVER SWITCH	40	7286193	RECORDING LOCK LEVER
SP	5401121	SPEAKER-5CM	41	7109503	MOTOR ASSEMBLY
SP	5406412	SPEAKER-12CM	42	6576083	RUBBER PLATE
S601	5602021	SEESAW SWITCH (BS)	43	5681371	COLLAR
FOR ACCESSORIES			44	7287819	RC LEVER
△	5747321	POWER CORD	45	7311142	FF FUNCTION LEVER
△	5746341	CORD ASSEMBLY (BS)	46	6304161	SPRING
	5896391	FM ANTENNA (BS)	47	7109492	TURNTABLE HOLDER ASSEMBLY
FOR CASSETTE DECK ASSEMBLY (A)			48	6300375	SPRING FOR RECORDING PLATE
1	6752792	PICK UP PIECE	49	6324814	SPRING
2	7786115	POLYESTER WASHER	50	7286031	FR LEVER
3	0948492	BALL - 2MMD	51	7317881	SETTING OFF LEVER ASSEMBLY
4	6752801	PICK UP LEVER	52	6302957	SPRING
5	7311882	JOINT PLATE	53	6301101	SPRING
6	7105836	HEAD PLATE	54	6301233	SPRING
7	6321734	SPRING	55	7109603	FF,REWIND ARM ASSEMBLY
8	5444761	RECROD PLAYBACK HEAD	56	6300981	SPRING

SYMBOL-NO	P-NO	DESCRIPTION	SYMBOL-NO	P-NO	DESCRIPTION
FOR CASSETTE DECK ASSEMBLY (A)					
57	6301361	SPRING	86	6296381	SWITCH KNOB
58	6323064	SPRING	87	7765871	SPACER
59	6301721	SPRING	88	6051633	PUSH BUTTON (MODE)
60	6300996	SPRING	89	6287513	KNOB-16MMD
61	6373281	FLYWHEEL ASSEMBLY	90	6289231	KNOB-21MMD
62	6354211	BELT	91	6282687	KNOB-20MMD
63	6743884	THRUST SUPPORT	92	6334121	HANDLE ASSEMBLY
64	7786621	POLYSLIDER WASHER	93	6756861	HANDLE PIECE
FOR CASSETTE DECK ASSEMBLY (B)					
65	6756952	CHASSIS ASSEMBLY	94	6570221	MICROPHONE HOLDER
66	6316231	SPRING M	95	6282993	KNOB-14MMD
67	6394412	POINTER	96	7781148	BT SCREW-3MMDX50MM
68	6345594	PULLEY-100MMD	97	8699410	BT BIND HEAD SCREW-3MMDX10MM (BLACK)
69	7781146	BT SCREW-3MMDX20MM	98	6033781	FRONT CASE ASSEMBLY
70	6756851	STUD	99	6033782	FRONT CASE ASSEMBLY (BS)
71	6750821	EXCHANGE LEVER	100	6052683	PUSH BUTTON (LCD)
72	6750822	EXCHANGE LEVER	101	6533262	SPRING FOR LCD BUTTON
73	6756831	LEVER HOLDER	102	6092441	CASSETTE LID ASSEMBLY
74	6750851	ARM (BAND SELECT)	103	7781133	BT SCREW-3MMD
75	6750846	LEVER (BAND SELECT)	104	7781134	BINDING SCREW
76	6756901	FUNCTION SLIDER	105	6033811	REAR CASE ASSEMBLY
77	6750872	LEVER (FUNCTION)	106	6033812	REAR CASE ASSEMBLY (BS)
78	6467734	SCALE PLATE	107	6173452	BATTERY LID ASSEMBLY
79	7312812	RECORD SPRING ASSEMBLY	108	5687142	CAP TERMINAL
80	5559311	COUNTER	109	8744414	BIND SCREW-3MMDX14MM
81	6354471	COUNTER BELT	110	6308961	SPRING
82	6257643	BUTTON ASS.(REC)	111	6545651	BATTERY TERMINAL
83	6257644	BUTTON ASS.(PAUSE,FF,REW,PLAY,STOP/EJECT)	112	6329722	BATTERY TERMINAL
MISCELLANEOUS					
84	6282732	KNOB (TUNING)	113	6756891	TERMINAL HOLDER
85	6282701	KNOB ASSEMBLY	114	6303483	SPRING
			115	7451161	BATTERY TERMINAL
			116	6746902	SWITCH COVER (BS)

Type of head			
P	Pan head screw		BT Binding head tapping screw 
F	Flat countersunk head screw		BL Bolt 
B	Binding head screw		W Washer 
T	Round head tapping screw		E "E" ring 
Length (L mm)		 	
Diameter (D mm)			

When ordering hardware excluding stated on these lists, be sure to make your orders with type and size.

8. A-K10 Schematic Diagram

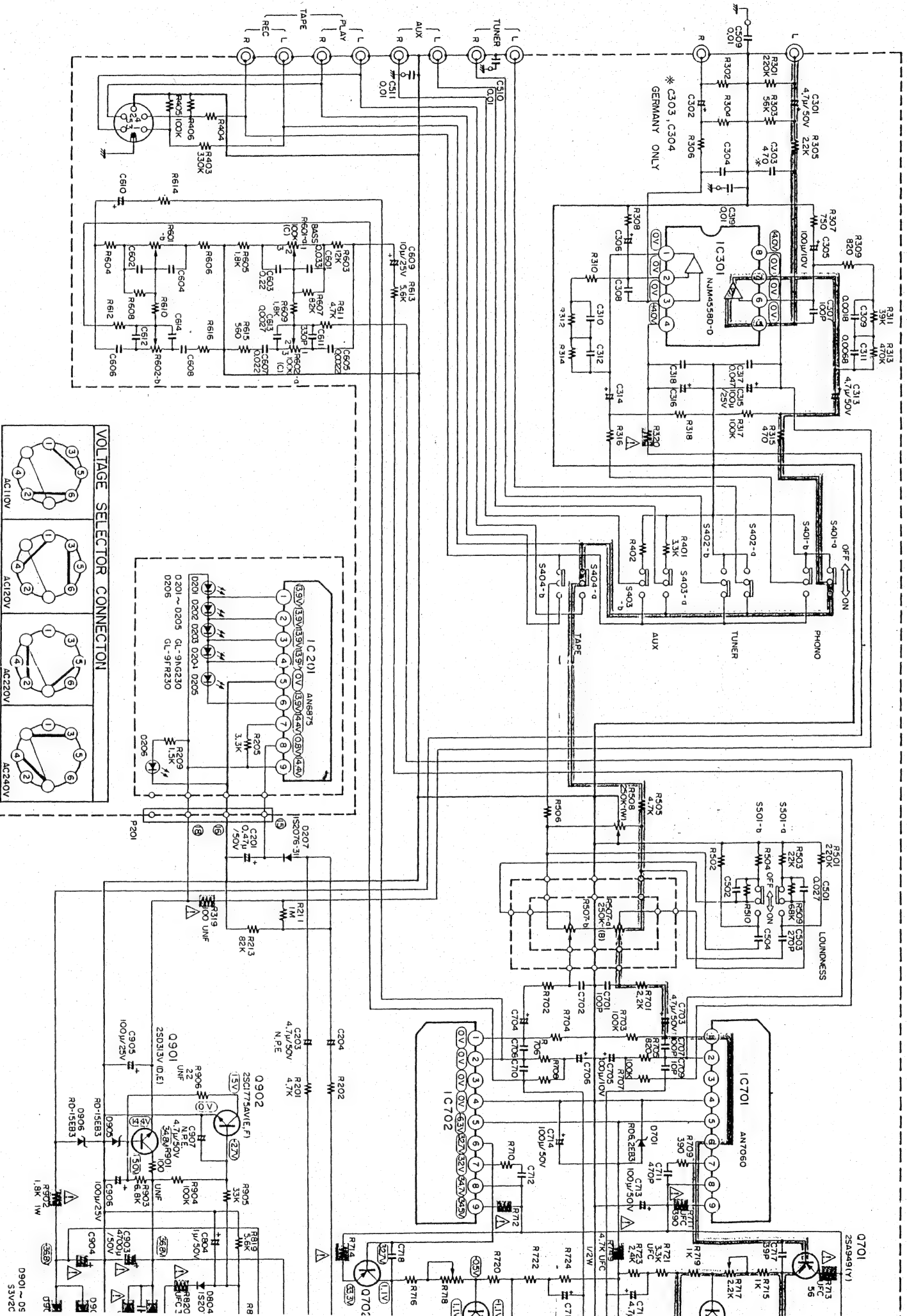
A

B

C

D

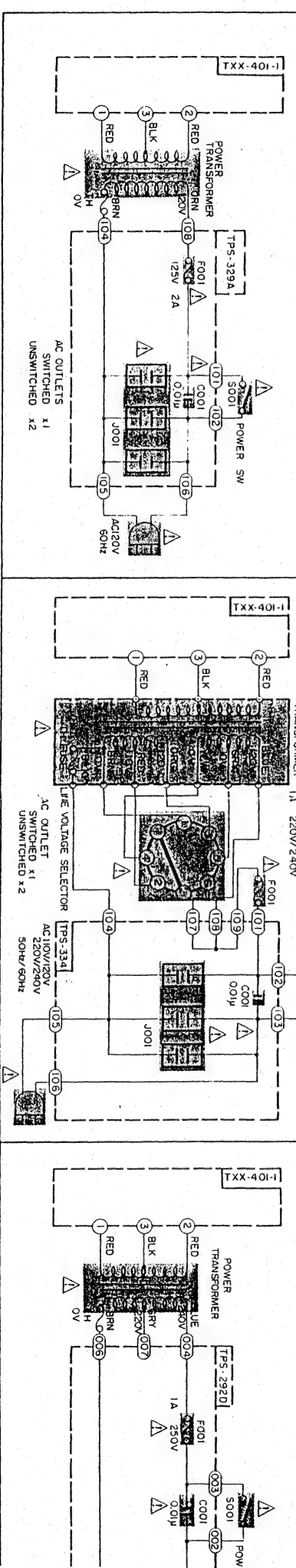
S 101-404 = QST H4A2-ISO1



(U) FOR USA (C) FOR CANADA AC120V 60Hz

(U) FOR OTHER COUNTRIES (P) FOR US MILITARY

(BS) FOR UK. (A) FOR AUSTRALIA AC240V ~



A

B

C

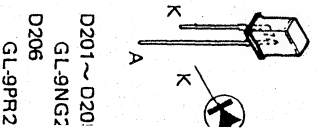
D

P.C. Board Ass'y	Description	Page
TPX-401A/B/C/D	Main Amp. P.C. Board Ass'y	6
TPS-292C/DBS	AC P.C. Board Ass'y	9
TPS-334A	"	9
TPS-329A	"	9

Printed Circuit Board Ass'y Locations

Notes:

1. Voltage values in are positive.
2. Voltage values in are negative.
3. ██████ indicates signal path.
4. When replacing the parts in the darkened area (██████) and those marked with , be sure to use the designated parts to ensure safety.
5. Parts in red indicate transistors or ICs.
6. This is the standard circuit diagram.

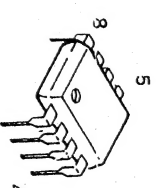
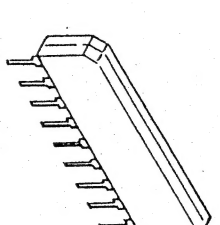
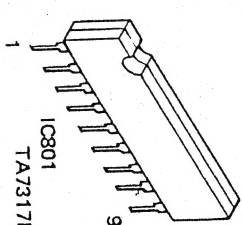


D201 ~ D202
GL-9NG2
D206
GL-9PR2

D

E

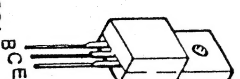
F



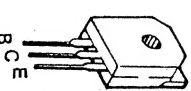
Q703, 704
2SC2546 (E, F)
Q801, 802
2SC1775AV (E, F)
Q803
2SA872 (E)
Q902
2SC1775AV (E, F)



Q701, 702
2SA949 (Y)
Q705, 706
2SC2235 (Q, Y)
Q707, 708
2SA965 (Q, Y)



Q901
— 2SD313V (D, E)



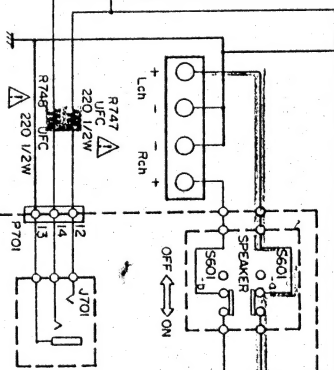
Q709, 710
2SD716 (R, O)
Q711, 712
2SB686 (R, O)

2

1

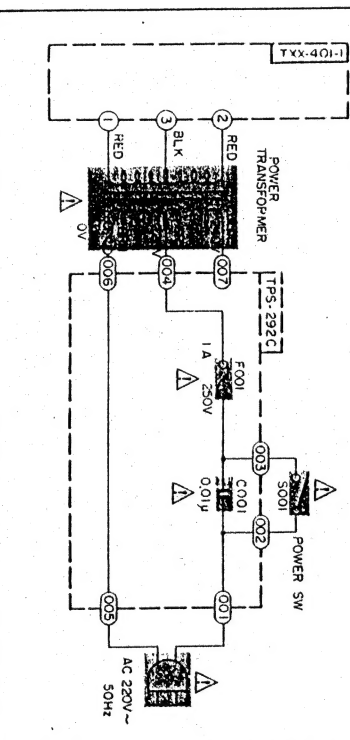
3

4

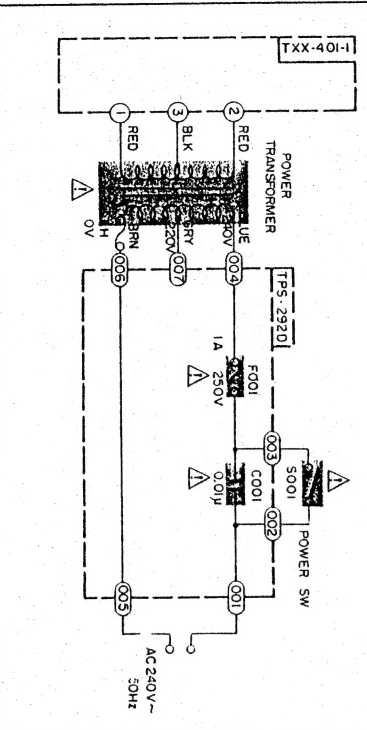


* C901
U.K.
AUSTRALIA
U.S. MILITARY MARKET
& OTHER COUNTRIES] 0.47
USA
CANADA] 0.01

(E) FOR CONTINENTAL EUROPE (G) WEST GERMANY AC220V~
50Hz



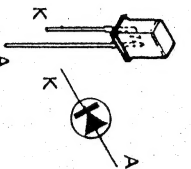
(BS) FOR U.K. (A) FOR AUSTRALIA AC240V ~ 50Hz



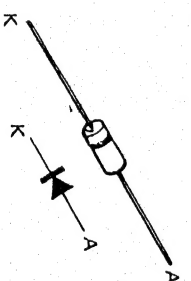
D

E

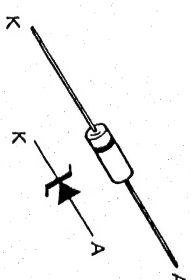
F



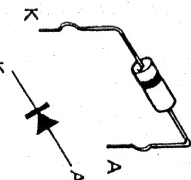
D201 ~ D205
GL-9NG230
D206
GL-9PR230



D801 ~ D804
1S2076-31



D905, 906
RD-15EB3



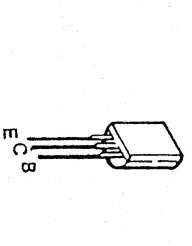
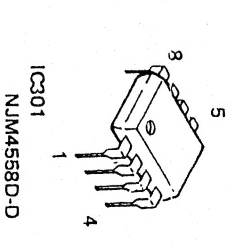
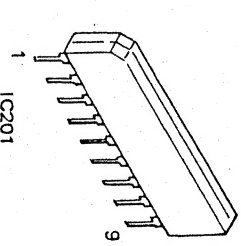
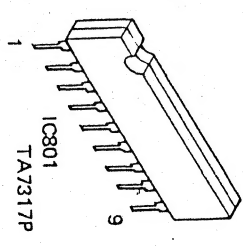
D901 ~ D904
S3V20F

area ()
the designated

D

E

F



Q703, 704
2SC2546 (E,F)
Q801, 802
2SC1775AV (E,F)
Q803
2SA872 (E)
Q902
2SC1775AV (E,F)

Q701, 702
2SA949 (Y)
Q705, 706
2SC2235 (Q,Y)
Q707, 708
2SA965 (Q,Y)

Q901
— 2SD313V (D,E)
B C E

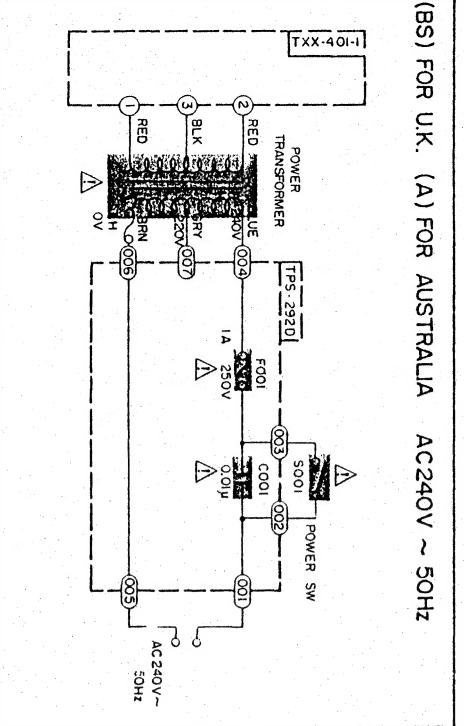
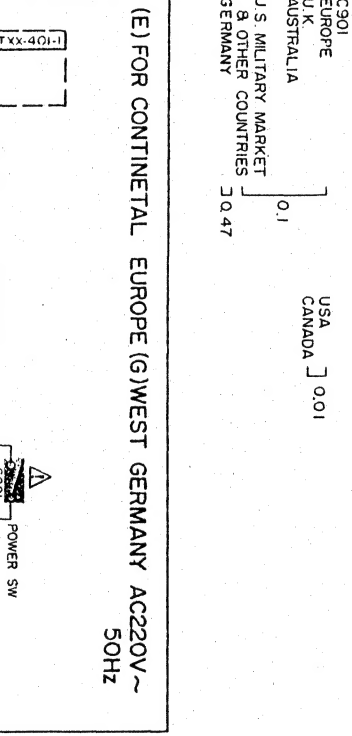
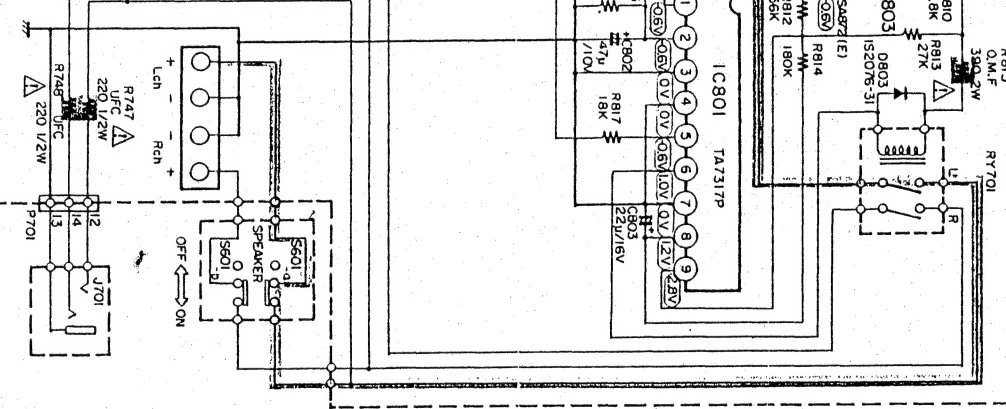
Q709, 710
2SD716 (R,O)
Q711, 712
2SB686 (R,O)
B C E

4

3

2

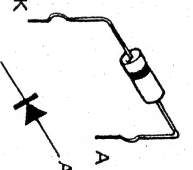
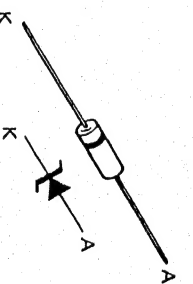
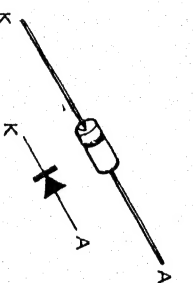
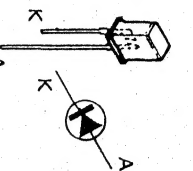
1



D

E

F



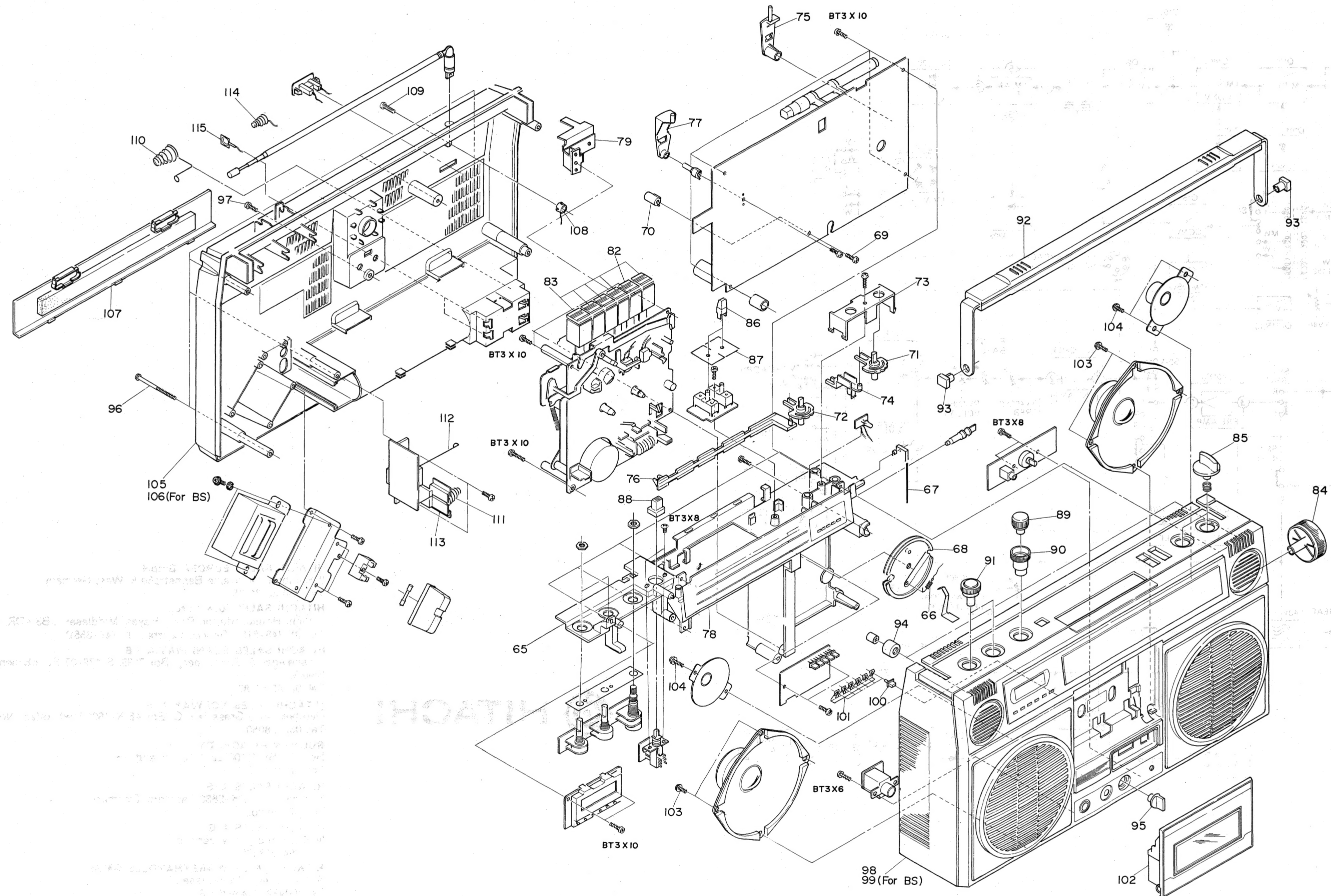
D201~D205
GL-9NG230
D206
GL-9PR230

D801~D804
1S2076-31

D905, 906
RD-15EB3

D901~D904
S3V20F

EXPLODED VIEW



REF ID: A50019X3



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